EnOcean
Self-powered IoT

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TO:
Federal Communications Commission
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Regarding: Public Notice Regarding NextNav Petition for Rulemaking
Docket No. 24-240 RM-11989

Date 02. Sep. 2024

To whom it may concern,

On behalf of EnOcean, I am writing to the Federal Communications Commission (FCC) to establish EnOcean Inc official position against NextNav's Petition for Rulemaking (Docket #24-240 RM-11989).

BACKGROUND

EnOcean is providing a wide range of wireless solutions used primarily in building automation and building monitoring solutions that are used by more than 400 companies.

Products using EnOcean technology are used every day in over 1 million buildings to automatically control lighting, shading, heating and ventilation thereby substantially reducing the energy consumption of these buildings.

EnOcean solutions have been deployed in the United States for more than 10 years using the frequency of 902.875 MHz.

By its Petition for Rulemaking (Docket #24-240 RM-11989), NavTech is proposing that the spectrum used by EnOcean solutions shall be re-assigned to NextNav.

CONCERNS

Our analysis of the proposal identified the following negative impacts and operational concerns associated with this Petition for Rulemaking:

1. Operational failures due to interference.

Currently deployed EnOcean solutions operate at a frequency of 902.875 MHz in the United States. Reassigning this frequency to a different – possibly interfering – technology might cause unexpected operational failures of lighting, shading, ventilation, heating or cooling systems in hospitals, offices, malls, schools or

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residential buildings after many years of reliable operation.

2. Absence of real-world impact assessment ahead of deployment.

NextNav's plans for the 902-907 and 918-928 MHz bands would suddenly allow devices with up to two orders of magnitude higher transmission power and significantly higher traffic rate to operate within a spectrum that has been used by EnOcean solutions for more than 10 years.

It will be impossible to determine the true effect of such deployment without extensive real-world impact assessment ahead of deployment.

3. Scope of disruption.

The spectrum band affected by NextNav's plans for the 902-907 and 918-928 MHz bands is essential for the operation of tens of millions of existing smart home, smart building and industrial solutions. This spectrum is used both by EnOcean-based solutions and multiple other low power wireless standards such as Zigbee and zWave.

The proposed reallocation of this spectrum could suddenly render millions of devices inoperative which would cause huge operational disruptions and resulting economic loss for schools, hospitals, government buildings, offices, companies, industry and individuals.

4. Absence of mitigation.

Should the planned deployment suddenly result in functional issues for solutions that have deployed over the course of more than 10 years, then there is no mitigation option as the operational frequency of deployed solutions cannot be changed due to compliance with FCC regulations.

Schools, hospitals, offices, malls and residential homes might experience operational failures based on the proposed deployment and would be left without option to address those short of a completely new installation which is not a viable option.

CONCLUSION

For the reasons listed above, EnOcean opposes the Petition for Rulemaking (Docket #24-240 RM-11989) and requests that the FCC deny NextNav's petition.

If you have any questions, please contact matthias.kassner@enocean.com.

Best Regards,

Oliver Sczesny – President EnOcean Inc.